CW-HW #152 quadratic review

Geometry

Due Date: Mon, May 11, 2015

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ per: \_\_\_\_\_\_\_

|  |  |
| --- | --- |
| 1. *In the past, we used FOIL or box method to simplify the expression below. Let’s refresh our memories…* | |
| 1. *FOIL or use the box method to find the quadratic expression.* | |
| *Continue finding the quadratic expression that is equivalent to the product of the binomials:* | |
| 1. (n + 7) (n + 2)   **Ans: n^2 + 9n + 14** | 1. (k + 7) (9k - 4)   **Ans: 9k^2 + 59k - 28** |
| 1. (p + 8)(4p - 9)   **Ans: 4p^2 + 23p -72** | 1. (6p + 7)(p – 8)   **Ans: 6p^2 – 41p – 56** |
| *What if this was related to shapes? Draw & label the figures. Then, solve and simplify.* | |
| 1. If one side of a square is x + 3 inches long, what expression could represent its area? (Draw & label) | 1. A rectangle has a length of x + 2 and a length of  x – 7. Draw & label the shape, then write a simplified expression for its area.   **Ans: x^2 – 5x - 14** |
| 1. A rectangular prism has a length of *l* inches, a width that is three inches longer the length, and a height of 2 inches. Draw & label the shape, then write a simplified expression for its volume.   **Ans: 2(l)(l+3) = 2l^2+6l** | 1. A rectangular curtain is covering a square window. If one side of the curtain should extend five inches longer than the window and the other side should be seven inches longer, what simplified expression could represent the amount of fabric needed for the curtain?   **Ans: (x+5)(x+7)=x^2 + 12x + 35** |
| ***Now do the opposite! Take the simplified expression and turn it into its factors (binomials).*** | |
| 1. Factor the following quadratic: x2 – 15x + 56.   **Ans: (x-8)(x-7) x** | |
| 1. Little tougher: Now factor 2x2 + x – 6.   **Ans: (2x-3)(x+2) x** | |
| 1. Little tougher still: Factor 3x2 + 15x – 42.   **Ans: (3x-21)(x+2) or (x-7)(3x+6) = 3(x-7)(x+2) dx** | |
| 1. Find the solutions:   **Ans: x = -7, -2** | |
| 1. Find the solutions:   **Ans: z=9, 4** | |
| 1. Find the solutions:   **Ans : d = 5/3, -6** | |

**Homework: (1) Finish this sheet. (2) Complete the survey in your email** (or go to[**j.mp/geoplan**](http://j.mp/geoplan)) – you must be signed into your Muchin gmail. Please do this before AMA on Monday. This will help us plan for the PLAN!